



Stanford SIM1 Building

Grant Award Details

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Grant Type: Major Facilities

Grant Number: FA1-00609

Investigator:

Name: John Hennessy

Institution: Stanford University

Type: PI

Award Value: \$43.578,000

Status: Closed

Grant Application Details

Application Title: Stanford SIM1 Building

Public Abstract:

This application will describe the depth and breadth of our Stem Cell Programs in the "CIRM Institute" category. We are requesting funds to help with the construction costs for our Institute of Stem Cell Biology and Regenerative Medicine, a free-standing new building dedicated to our Stem Cell Programs. Currently, our stem cell program and our faculty are spread across laboratories both on and off campus. Our Institute represents a unique university-wide collaboration that brings life, physical, and engineering sciences together with leaders in business, law, and education. Our stem cell programs include all three elements in the RFA: basic and discovery research (Element X), pre-clinical research (Element Y), and pre-clinical and clinical research (Element Z). The new building will house faculty who were present prior to launching our Institute of Stem Cell Biology and Regenerative Medicine in 2002, new faculty that have been recruited since 2002, and faculty who we anticipate recruiting in the next five to ten years. Our stem cell programs in Element X focus on areas including embryonic stem cell biology, reprogramming of adult somatic cells, tissue and organ adult stem and progenitor cells, and cancer stem cells. Our Stem Cell Programs in Element Y focus on ten area/organ systems for pre-clinical research. The stem cell efforts in pre-clinical development and pre-clinical research, Element Z, are currently robust in hematopoietic cell transplantation and cancer stem cells. We anticipate that as our programs in human embryonic stem cell research and reprogramming develop over the next decade, there will be a parallel progression from Elements X and Y into Element Z.

The new building will house relevant faculty supported by state-of-the-art core facilities including an animal vivarium with in molecular imaging, human embryonic teaching laboratory, and cell and tissue bank. In addition to the scientific cores, the new structure will house space for our Program in Regenerative Medicine and clinical trial support. Finally, we have a strategic plan to recruit new faculty in all areas of our stem cell program over the next five to seven years.

Clearly, not all of our stem cell faculty and programs will be housed in the new facility, but it will act as the "hub" of our efforts and link our affiliated stem cell faculty and programs across the campus via the Program in Regenerative Medicine. This facility will not simply "reshuffle" our existing faculty in the Stem Cell Program. In contrast, it will provide a critical mass of faculty, the opportunity to recruit additional faculty, and core facilities in the X, Y and Z Elements all in a single location. This new facility will synergize collaboration across all seven schools on our campus to promote innovation, new diagnostic tool, and novel therapies, with biomedical ethical oversight in stem cell biology and regenerative medicine.

Statement of Benefit to California:

This proposal will provide real benefits to the State of California and its citizens. The proposed new facility for which we are requesting CIRM funds will be a free standing Institute of Stem Cell Biology and Regenerative Medicine. Our stem cell programs include efforts in basic and discovery research (Element X), pre-clinical research (Element Y), and pre-clinical development and clinical research (Element Z). The Institute will bring together faculty in our stem cell programs that are currently housed in many locations both on and off campus. Furthermore, our Institute represents a unique University-wide collaboration that brings together over 100 faculty in life, physical, and engineering sciences, together with leaders in business, law, and education.

The new Institute will benefit California and its citizens in the following ways: First, by brining together faculty in exploring basic, translation, and clinical research (the X, Y, and Z Elements) in one building, unique interdisciplinary collaborations will be greatly expanded. Second, new state-of-the-art core facilities will support the faculty in their pursuits of novel stem cell therapies. Third, the Institute will be the "hub" of our stem cell programs, but connect with stem cell and related faculty across the campus in all seven schools. Fourth, allow us to recruit additional world class faculty into embryonic adult and CSC biology into the Institute over the next decade. Finally, by brining together the stem cell faculty in one building and connecting and coordinating (via our program in regenerative medicine), our effort across the campus will maximize our capability to develop innovative new diagnostics, tools, and novel therapies in stem cell biology and regenerative medicine. These innovations will improve the lives of Californians and beyond and bring additional research talent and business into the State.

It is important to emphasize that our new facility will not simply "reshuffle" our existing faculty in stem cell programs. In contrast, the new facility will provide a critical mass of faculty, existing and to-be-recruited, and core facilities in the X, Y, and Z Elements in a single location. This will synergize collaboration across all seven schools on campus to promote fundamental discovery through to clinical trials, with biomedical ethical oversight, in stem cell biology and regenerative medicine.

Our University has an outstanding track record for innovation in medicine in all of the X, Y, and Z Elements. The new SISCB/RM facility will promote discoveries and their translation into novel clinical therapies by bringing together a critical mass of stem cell faculty with basic and clinical scientists to unravel the genes, developmental programs, and in vivo biology of stem cells from all four stem cell research areas. (Characters w/spaces 2,848)

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